



Brazos River Authority

**Special points of interest:**

- TCE a valued educational resource for Texas
- Recent technology meeting held in Waco
- Details on watershed coordination website
- Bid accepted for Dairy Waste Demonstration project



Texas State Soil & Water Conservation Board

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# North Bosque Newsletter

PRESENTED BY THE AUTHORITY IN COOPERATION WITH THE TSSWCB

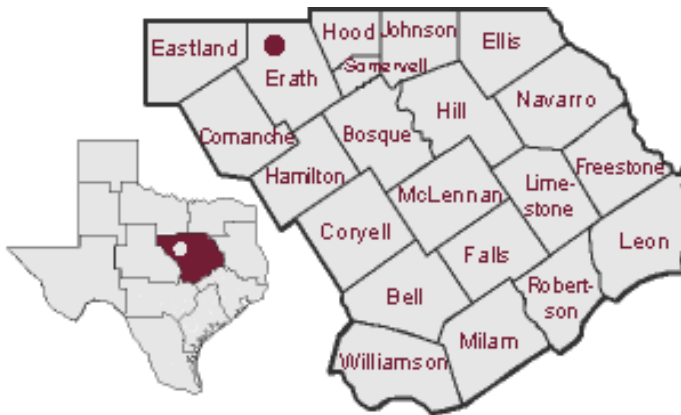
## Agency Highlight: Texas Cooperative Extension

The Texas Cooperative Extension (TCE), formerly known as the Texas Agricultural Extension Service, has been an educational resource to the State of Texas for over 87 years. TCE's broad range of educational responsibilities includes environmental and natural resource protection, as well as support for agricultural production. Extension agents are located in each of the State's 254 counties as part of the Texas A&M University System's outreach to all Texans. In the North Bosque Watershed, which includes parts of McLennan,

Bosque, Hamilton, and Erath Counties, TCE maintains a full-time staff that provides educational programs and result demonstrations of new technologies and methods to area residents. Extension Specialists are located at the Texas Agricultural Research and Extension Centers (AREC) located in each of the State's 12 Extension Districts. These

specialists are for county agents to contact and to utilize in programs and demonstrations. The North Bosque Watershed is part of Central District Eight with the AREC located in Stephenville, Texas.

Central District Eight has a population of over 1.25 million people with rapidly changing demographics. Agricultural production and marketing are the major contributors to the economy, although recreational use of range lands and the industrial development along the Interstate 35 Corridor are contributing to



Map showing area administered by Central District Eight (from Stephenville AREC website)

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### Brazos River Authority Accepts Bid for Demonstration Project

The Brazos River Authority has accepted a bid to construct an anaerobic digester and other design features for the Dairy Waste Management: Phosphorus Reduction Demonstration Project taking place on a Hamilton County dairy. The bid winner will construct a facility that will anaerobically digest organic dairy wastes, capture the methane gas by-product, and generate electricity that will help offset the costs of operation and main-

tenance of the system. The anaerobic system was designed by Cascade Earth Sciences as an integral part of the overall waste management and phosphorus reduction project that targets an 80 percent reduction of phosphorus in the dairy's waste stream. Other advantages should include reductions in odors, pathogens, and greenhouse gas emissions, and generation of electricity without the use of fossil fuels.

Accepting a bid has

moved the project one step closer to reality. Construction could begin as early as this June with a possible start-up during the fall of 2004. A timeline for project completion should be more refined after construction has started.

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## Agency Highlight: Texas Cooperative Extension (continued)

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the economic stability and growth of the region.

Educational efforts are carried out by TCE in a variety of ways, including media (radio, newspaper, etc.) and one-on-one and group meetings. Topics often include herbicide and pesticide management, home gardening, and composting. The state required Dairy Outreach Program Area (DOPA) continuing education credit for dairy operators is administered by TCE with past subjects that have included lagoon management and phosphorus management education. DOPA includes the counties of Erath, Bosque, Hamilton, Comanche, Johnson, Hopkins, Wood, and Rains. TCE also coordinates the Southwest Dairy Field Day, which attracts many dairy farmers across Texas and surrounding states for demonstrations in innovative approaches to waste management and other important issues.

Recent efforts in the North Bosque Watershed have been directed at developing a sustainable market for com-

posted dairy manure as part of the Texas Commission on Environmental Quality (TCEQ) Compost Manure Incentive Project (CMIP). The CMIP is a project funded by an EPA 319 grant that allows for dairy manure to be hauled from farms to composting sites and ultimately used outside the watershed. TCE and the Texas Water Resources Institute (TWRI) have organized an education and marketing program to increase public awareness of compost's uses. Although the Texas Department of Transportation is currently the major buyer of the compost, TCE and TWRI hope to develop markets for compost in areas such as recreational turf application. Demonstrations are being implemented in 28 North-Central Texas counties at parks, sports complexes and ornamental horticultural settings.

Another topic of interest to the North Bosque Watershed in which TCE is involved is the refinement of the Texas Phosphorus Index. Objectives of this project include determining how soil properties affect phosphorus levels in the Bosque

and Leon River Watersheds and improving the ability of the index to predict the concentration of phosphorus in rainfall runoff. Phosphorus runoff potential is affected by soil type, fertilizer application rates, slope of land surface and proximity to streams. Other agencies engaged in this effort include TWRI, which is the project lead, the US Department of Agriculture - Natural Resources Conservation Service, and the Texas State Soil and Water Conservation Board. As the index is refined, the agencies will develop education and outreach programs to teach agricultural producers how to use the index to more accurately predict the potential for phosphorus runoff.

The Texas Cooperative Extension has been and will continue to be a valued resource for Texans by working to improve resource management as well as water quality. Their dedication to better public understanding of these critical issues is vital to the continued progress of the combined efforts of all those involved in the North Bosque River Watershed.

## Watershed Coordination Site To Be Posted on the Web

After several months of research and preparation, the North Bosque Watershed Coordination Website should be available for viewing in May on the Brazos River Authority web site ([www.brazos.org](http://www.brazos.org)) along the right side of the Home page under the button labeled "North Bosque Watershed Coordination." The site contains the latest information about ongoing projects to improve water quality and resource management in the North Bosque River Watershed. In addition to information about projects, the site also has fact sheets pertaining to the many agencies and entities involved in the watershed.

While fact sheets about agencies and projects make up the majority of the website's content, the site contains other useful information as well. There is a section about the watershed which explains the physical geography, land uses, agriculture, and urban areas. Links to applicable rules and regulations will allow interested parties to stay informed about the status of new laws. The site will also link to an online water quality data clearinghouse which should be active in May. This water quality site contains data collected by many of the agencies that monitor the North Bosque and Leon River Water-

sheds. Other pages on the site include a stakeholder list, descriptions of new technologies for improved waste management, and an archive for monthly newsletters. A project proposal form will allow the submission of information about new technologies and facilitate funding by interested stakeholders.

It is hoped that the new website will continue to increase the level of communication among stakeholders and help to bring about useful solutions that lead to improvements in water quality in the North Bosque River Watershed.

## Technology Meeting Held at Texas Farm Bureau in Waco

A Clean Water Act, Section 319(h) project funded by the USEPA Region 6 and administered by the Texas State Soil and Water Conservation Board (TSSWCB) provides for testing of new technologies designed to minimize water pollution associated with animal production systems, principally dairies. The focus is restricted to reducing phosphorus in dairy liquid manure effluent applied to the waste application field (WAF) without adversely impacting the onsite waste management system or other waste constituents. Proposals were requested from technology providers for technologies to be tested and demonstrated in the North Bosque and Leon River Watersheds. The

implementation of this project consists of evaluating six new technologies placed on cooperators' dairy farms by the technology providers during the next three years (FY2004 - 2006).

On April 19, 2004, a technical committee that consisted of engineers, scientists, dairy industry, state and federal agency representatives met at the Texas Farm Bureau headquarters in Waco and reviewed six proposals submitted by the technology providers. These proposals were ranked from 1 (being the best) to 6 (the lowest rank) based upon their technical and scientific merit. Technology providers of the 2 highest ranking proposals will be informed about the

committee's decision by May 15, 2004. It is hoped that the two selected technologies will begin demonstration of reducing phosphorus from dairy effluent during the summer of this year. In-kind Awards of up to \$9,000 for analyses of raw, treated and recovered liquid manure effluent will only be available to the selected technology providers. All analyses will be conducted at the Texas Institute of Applied Environmental Research (TIAER) testing laboratory in Stephenville. Texas Cooperative Extension in cooperation with Texas Water Resources Institute and other state and federal agencies will conduct field demonstrations of the technologies and publish reports on their performance.

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### Brazos River Authority

4600 Cobbs Dr.  
PO Box 7555  
Waco, TX 76714-7555  
Phone: 254-761-3100  
Fax: 254-761-3204



Brazos River  
Authority

**This newsletter is produced for the benefit of the North Bosque River Watershed Stakeholders. Its purpose is to inform the readers and to highlight positive activities taking place within the watershed. If you're involved in a project in the watershed or hosting an event related to pollution prevention or water quality enhancement and you'd like to see it in a future issue of this newsletter, please contact Gary Henry ([ghenry@brazos.org](mailto:ghenry@brazos.org)) or Kyle Headley ([kheadley@brazos.org](mailto:kheadley@brazos.org)) by email or by phone at 254-761-3167.**

**ISSUE 3 OF THE NORTH  
BOSQUE NEWSLETTER WILL  
SPOTLIGHT THE TEXAS  
INSTITUTE FOR APPLIED  
ENVIRONMENTAL RESEARCH  
AND THEIR EFFORTS IN  
THE WATERSHED**

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THESE NEWSLETTERS, ALONG WITH OTHER ASPECTS OF THE PROJECT, WILL SOON BE LOCATED ON THE AUTHORITY'S WEBSITE ([WWW.BRAZOS.ORG](http://WWW.BRAZOS.ORG)) UNDER THE TAB LABELED "NORTH BOSQUE WATERSHED COORDINATION"

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